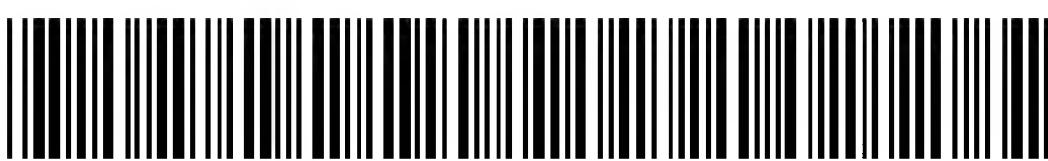




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(54) **Sense FET and fast amplifier.**

(57) A circuit for providing drive current to a coil of a motor uses a sensefet current sensing device having a sense node and a source node. The source node is connected to deliver current to the coil, wherein a "sense" current proportional to said delivered current is produced on the sense node. An amplifier is connected to sense a voltage between said sense and source nodes to produce an output voltage to force a voltage on the sense node to be the same as a voltage on the source node. A pass element is connected to route said "sense" current to an output node. The circuit produces an output that is suitable for use as a feedback signal in a motor control system.

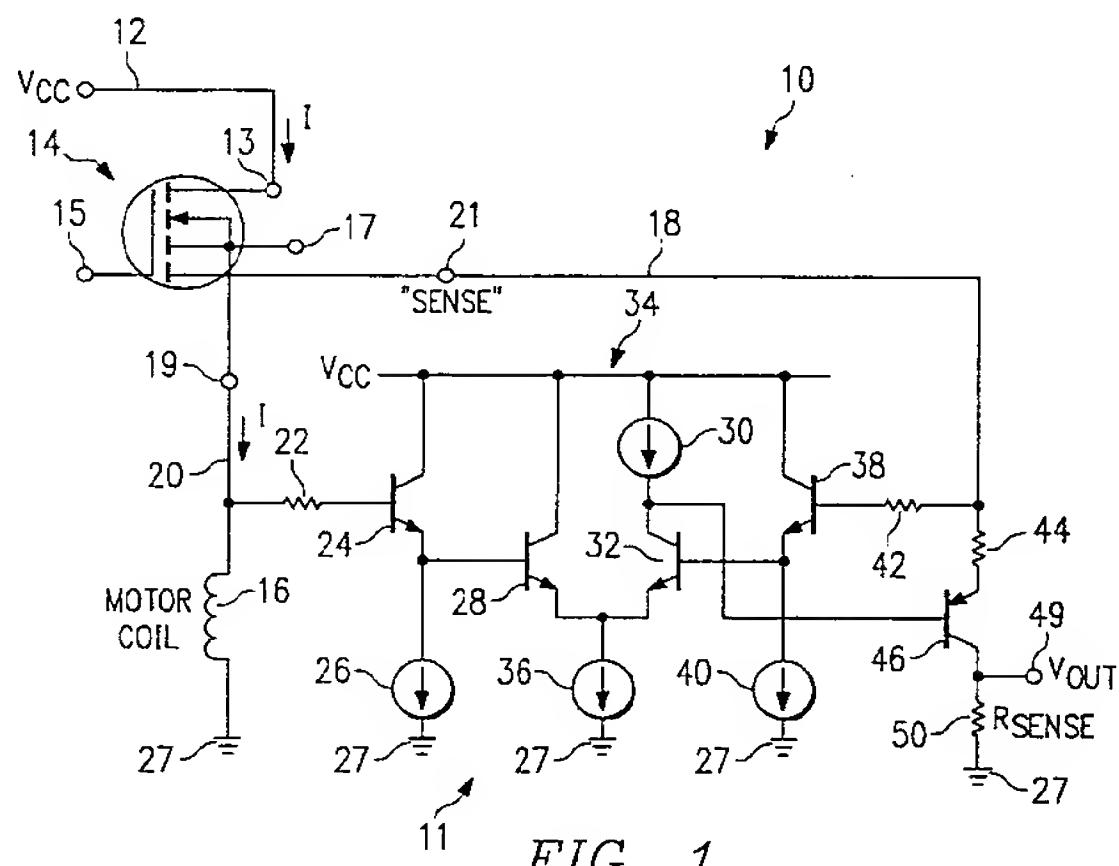


FIG. 1



## EUROPEAN SEARCH REPORT

Application Number  
EP 93 30 3875

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
X	EP-A-0 294 880 (PHILIPS ELECTRONIC AND ASSOCIATED INDUSTRIES LIMITED) 14 December 1988	1-4, 16, 17	H02P7/28 H02P6/02 G01R19/15
Y	* abstract; claim 11 * * column 8, line 11 - column 9, line 36; figure 2 *	5, 7, 9-11	
X	EP-A-0 227 149 (NV PHILIPS' GLOEILAMPENFABRIEKEN) 1 July 1987	1-4, 16, 17	
Y	* abstract * * column 3, line 5 - column 5, line 44; figure *	5, 7, 9-11	
Y	EP-A-0 467 655 (NEC CORPORATION) 22 January 1992	5	
A	* column 1, line 5 - line 36; figure 1 *	12, 15	
Y	4TH EUROPEAN CONFERENCE ON POWER ELECTRONICS AND APPLICATIONS, vol.3, September 1991, FLORENCE, ITALY pages 322 - 325 DUNFORD W. G. ET AL. 'Combined overcurrent and overtemperature protection with sensefets' * page 323, right column, paragraph 2; figures 2,3 *	7, 9-11	
A	US-A-4 654 568 (MANSMANN) 31 March 1987 * column 1, line 61 - column 2, line 50; figure *		H02P G01R H03F
A	EP-A-0 332 547 (SGS-THOMSON MICROELECTRONICS S.A.) 13 September 1989 * column 1, line 6 - line 47 * * column 3, line 34 - line 63; figure 4 *	8	
The present search report has been drawn up for all claims			
Place of search EPO FORM 1503 03.82 (P4MC01)	Date of completion of the search 16 May 1994	Examiner Bourbon, R	
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document	T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document		